



Newsletter


International Council for Archaeozoology

Volume 14, No. 2 (Fall 2013)

ICAZ 2014 NEWS

The 12th ICAZ International Conference Organizing Committee is very happy to receive all of you in San Rafael, where we are going to enjoy not only all of your presentations, but also the best wines, foods, landscapes, and people of our country. The 12th ICAZ International Conference will be held in the San Rafael Convention Center, which is new and equipped with all the amenities necessary to enjoy an unforgettable event. The conference web page (www.icaaz2014argentina.com) has the latest updates and all the information you will need to attend the meeting. Information on the thematic sessions is now available, and the website will be updated frequently until the ICAZ Conference in September 2014. The Second Announcement is now available online. Don't forget these important dates:

- Call for abstracts for thematic sessions: until March 1st, 2014;
- Call for abstracts for general sessions: until March 30th, 2014;
- Deadline for early registration (with discount): March 30th, 2014 (open February 1st, 2014). This deadline is mandatory for exhibitors (at least one author of the paper), session organizers, commentators, and moderators of sessions.

If you have any questions or suggestions, please don't hesitate to contact us at info@icaaz2014argentina.com. The 12th ICAZ International Conference also has its own Facebook page (ICAZ 2014 San Rafael) where you can see photos and information about San Rafael and its surroundings – join us! 



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ZOOARCHAEOLOGY IN PORTUGAL TODAY

By Cleia Detry, UNIARQ, Center for Archaeology, University of Lisbon (cdetry@gmail.com)

Portuguese Zooarchaeology began in 1857 when the Geological Commission was established. Two 19th century geologists, Carlos Ribeiro and Nery Delgado, were the first to understand the importance of animal bones from Portuguese archaeological sites. They included reports of animal bones in their publications (Ribeiro, 1878; Delgado, 1884). A particular highlight was the excavation and study of the now famous Mesolithic Muge shell middens in 1863. At Muge, animal bones were used to infer the date of occupation of the site as well as its palaeoeconomy (Pereira da Costa, 1865). Following Ribeiro and Delgado, Portuguese zooarchaeology went into a sad decline which continued well into the 20th century, as the unfavorable political climate did little to stimulate intellectual activity in archaeology and many academic endeavours. In the 20th century some zooarchaeology was undertaken on Portuguese sites by foreigners. Particularly important were the contributions made by Harlé (1910–11) who studied the birds and mammals from several Portuguese Quaternary sites; Driesch and Boessneck (1976) in their study of the fauna of Chalcolithic Zambujal; Lentacker (1986) who studied the remains recovered in the Muge shell middens; and Rowley-Conwy (1993)

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ICAZ
2014



SAN RAFAEL
ARGENTINA
SEPTEMBER
22ND – 27TH

WWW.ICAZ2014ARGENTINA.COM



MEMBERSHIP

To join ICAZ or renew your membership, visit the Membership section of the ICAZ website at <http://www.alexandriaarchive.org/icaz>. Dues may be paid online or via post. Questions and inquiries may be e-mailed to the Treasurer, Pam Crabtree, at icaztreasurer@comcast.net.

NEWSLETTER

ICAZ welcomes submissions to its biannual newsletter. E-mail submissions to the editor, Angela Trentacoste, at ICAZnewsletter@gmail.com. The deadlines are April 15 for the spring issue and October 15 for the fall issue, annually. Past issues of the newsletter can be downloaded from the Publications section of the ICAZ Website (see address below).

ICAZ WEBSITE

Visit the official ICAZ website at <http://www.alexandriaarchive.org/icaz> to stay up to date on all the latest information, including recent news, publications, ICAZ International Conferences, and Working Group meetings.

BONECOMMONS

BoneCommons (<http://www.alexandriaarchive.org/bonecommons>) is an ICAZ-sponsored project, developed by the Alexandria Archive Institute, to facilitate discussions between zooarchaeologists worldwide by offering forums where papers, ideas, images, questions, and comments can be posted.

WORKING GROUPS

ICAZ Working Groups (WG) are autonomous groups formed around common interest themes. For more information, visit the ICAZ website or contact WG Liaison, Zbigniew Bochenski, at bochenski@isez.pan.krakow.pl.

CONTACT ICAZ

The names and e-mail addresses of the ICAZ Executive Committee members and officers are listed on the back of this newsletter.

LETTER FROM THE PRESIDENT

Dear ICAZ Members,

This fall has been quite eventful for ICAZ officers as we are preparing for our 12th International Conference in San Rafael, Argentina during late September next year. Not only is the event itself yet another great opportunity for many to meet like-minded specialists from all over the world, but many of the topics discussed in previous Newsletter issues are also coming to fruition.

The election of a new President/Vice President and of a new International Committee will take place by the end of the San Rafael meeting. Following my two terms in office, it is now time for the membership to install a new president. Our five-member Nominating Committee found four able and widely respected members of ICAZ in good standing to compete for the position. This is a competition none of the candidates will lose, but half of them will certainly win. While these highly responsible leading positions seemed discouragingly complex for many of those approached, nominations for the IC were far more popular, resulting in 16 new candidates representing the incredible geographical and disciplinary diversity of ICAZ, in addition to those already serving and available to be nominated again. It is also encouraging that many of the potential new members of the IC are young, thereby showing cross-generational interest in actively shaping the organization. Again, many of these excellent candidates may not win the position this time, but their commitment to helping ICAZ grow will certainly find alternative venues. I am especially indebted to all candidates who considered running to benefit the organization in various functions.

Amendments to the statutes of ICAZ will also be voted on the occasion of the International Conference. Most of the proposed changes discussed in several rounds revolve around two issues directly related to the geographical expansion and increasing diversity of ICAZ. The voting procedures will be internet based as much as possible, allowing members not participating in a physical sense to make their voices heard in all relevant ICAZ issues. This is a qualitative change that is not simply 'modern', but an inevitable consequence of trying to make our legislation intercontinental in the face of the welcome fact that increasing numbers of colleagues need to be moved over increasing distances and the venues for various meetings will hopefully cover far larger areas of the globe.

The other question dealt with in the amended statutes concerns the function and size of the International Committee. In spite of the ideals of 'direct democracy', it was decided that the IC, an elected intermediary body, fulfils a very important mediating function between the broader membership and the Executive Committee. Put more simply, the IC plays an indispensable motivating role on a regional basis, even if it is not possible to have national representatives for each of the member countries participating in ICAZ. Certain countries and regions may also need more than one IC member given the intensity of work carried out in the area. The number of IC members was increased to 35 elected members (in addition to ex-officio members) keeping in mind that physical attendance at meetings may be easier when only a relatively small group of people needs to be mobilized across the world.

All these questions were discussed at the beginning of October by members of the Executive Committee in the home of Richard Meadow, whose family kindly hosted our group of ICAZ officers for a memorable weekend in New England, complete with home grown food and appropriately colorful foliage for the season. Richard reflected on the fact that the organization was created in Europe during the last years of the Cold War, to provide Soviet Bloc scholars with a forum, especially in countries where access to international meetings was limited on political grounds. Bridging political gaps by building personal working contacts has always been the primary aim of ICAZ, and it is reassuring to see that our membership has been very successful in fulfilling this important academic and moral mission.

Additional ideas raised at the EC meeting included the establishment of formal

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LETTER FROM THE PRES. (CONT.)

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archives, as the accumulation of administrative information through the decades of ICAZ's existence is of key importance in keeping matters running as smoothly as possible. This is best illustrated by the cooperation between 'past and future' organizers of International Conferences who can share not only mailing lists and accounting information, but also invaluable experience in the fund raising and logistical operations that have become routine for staging these large events. Such archives would also serve as a repository for our collective memory. Since 1971, ICAZ has evolved continuously. While the professional and ethical aims of the organization are clear, a lot has happened in the surrounding world as well as within ICAZ that merits systematic documentation to benefit future generations of the organization.

Sincerely,



László Bartosiewicz
ICAZ President 

ICAZ 2014 IS COMING!

IS YOUR MEMBERSHIP UP TO DATE?

Remember you can update and manage your ICAZ membership online. Don't want to miss out on any news? Make sure your membership is valid through the new year or you may miss out on important conference updates! It's easy to keep track of your status and pay dues directly through the website.

You can also update your details and search for other ICAZ members through the members' section of the website. More information on ICAZ Working Groups and past conferences and their proceedings is also available. Previous issues of the new Newsletter can also be downloaded online.

With the upcoming ICAZ International Conference in Argentina, it's more important than ever to be kept informed of news, deadlines, and ICAZ-related information – don't miss out!

Visit the ICAZ website to manage your membership at:

**WWW.ALEXANDRIAARCHIVE.ORG/
ICAZ/INDEX.HTM**



STINE ROSSEL AWARD

GUIDELINES

The ICAZ Stine Rossel Award, established in memory of the talented Danish PhD student, was first granted during the General Meeting that concluded the 11th International Conference of ICAZ in Paris. This award is designated to aid PhD student participation at the International Meeting of ICAZ every four years. It is possible to set aside a fund of \$500 (every four years) as a contribution towards the expenses of a deserving PhD student actively (oral presentation or poster) attending the ICAZ conference.

The conditions of this award are:

- The candidate should be officially registered as an active participant in an accredited PhD program (*i.e.* not on an extension for writing or interruption of studies) at the time of the International Conference targeted. The student should submit a brief summary of their dissertation, their conference abstract, and two letters of recommendation, which a selection panel would review.
- Applications should be sent via e-mail to the President of ICAZ eight months before the International ICAZ Conference in San Rafael, Argentina. The president would distribute the material among selection panel members, and a decision should be made in two months (*i.e.* six months before the conference). The award would be paid in the form of a refund at the conference to simplify transfer procedures.
- Geographical or gender balancing is a valid goal in the long run, but given the rarity of occasions, awards should be as purely merit based as possible.
- The Stine Rossel award should be advertised through the usual means – the ICAZ Newsletter, BoneCommons, Zooarch listserve, *etc.*

A task force composed of László Bartosiewicz, Pam Crabtree, Richard Redding, and Guy Bar-Oz was set up to carry out initial organizational steps. We would also *pro forma* include Nanna Noe Nygaard and Richard Meadow, Stine's teachers, as task force members in the decision making procedure.



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who studied the faunal remains from Forno da Telha. Studies undertaken by local geologists such as Cardoso (1995, 1996, 1997) and Antunes (1985, 1987) were to set the groundwork for modern Portuguese zooarchaeology.

A turning point came in 1997 with the establishment of the Portuguese Institute of Archaeology headed by João Zilhão and backed by a forward thinking minister of culture. Zilhão, a prehistoric archaeologist, understood the importance of a laboratory of archaeosciences which would include zooarchaeology. In January 2000, Moreno-García, Pimenta, Davis, and Gabriel purchased boxes, an incubator, several hotel-size cooking pots and 20 kilograms of industrial proteolytic enzyme. The first smells from macerating carcasses soon began emanating from IPA labs by the Tagus River at Belém in downtown Lisbon, and the end of 2000 saw the beginnings of a working collection of modern securely identified skeletons of Iberian animals. Today the LARC (Laboratório de Arqueociências) zooarchaeology collection is one of the largest and most user-friendly in the Iberian Peninsula with over 900 mammals, 1200 birds, 220 fish, 60 amphibians, and 100 reptiles represented – many or most are complete skeletons. Large mammals, small mammals, and birds are also organized anatomically as ‘index’ collections to facilitate the rapid identification of archaeological collections – an idea transferred from English Heritage’s old AMLab collection formerly in Savile Row, London.

Members of this laboratory published several reports dealing with animal remains from Portuguese archaeological sites ranging in date from the Mousterian to the 18th century AD. These publications were also important landmarks demonstrating how Zooarchaeology could open new approaches to archaeology than simple species list (Davis & Moreno-Garcia, 2007; Davis 2002, 2006; Moreno Garcia & Pimenta 2002, 2004).


The 21st century has brought new researchers with the PhDs of Detry (2007), Valente (2009) and Costa (2013), as well as numerous new prospective PhD students. The University of Algarve, for example, has been a big promoter of this area producing numer-

ous thesis in zooarchaeology. The University of Lisbon now has a master course specifically on zooarchaeology.

Prior to the invention of radiocarbon dating, zooarchaeological remains were used mainly to date archaeological sites. The understanding of human–animal relations and the impact of man upon the environment were side issues. The recent increase in the number of researchers in Portugal dedicated to this scientific area has produced a wider spectrum of approaches in taphonomy, osteometry, ancient-DNA, *etc.* and of groups studied, *eg.* fish and mollusks. The fact that Zooarchaeologists are starting to specialize in Portugal, it’s perhaps a sign of increase in number and quality of researchers. Still there is a lot of material to study and not enough specialists. Specialists in marine fauna (vertebrate and invertebrate) is still short in Portugal with only a few PhD students, like S. Gabriel and M. Coelho, developing work in a country with such a long coast.

Portugal has an immense archaeological heritage and has occupation that dates far back in the Palaeolithic, including with the presence of Neanderthals until quite late.

Because of its location between the Atlantic and Mediterranean, Portugal has been home to many different cultures. Namely in historic period has received Romans, Muslims, and Christians – one of the few places in Europe where that has happen. In consequence the history of the country encompasses many different forms of human–animal relationships. Portuguese zooarchaeology has, therefore, very rich and wide subjects to explore in prehistoric and historic periods.

Portuguese archaeologists have demonstrated an increasing interest in archaeosciences and do look for that information. But the low number of available researchers does not meet their needs. Additionally, heritage laws do not demand that excavated materials be studied; they only require that contractors pay for excavations. Consequently most of materials are kept in storage, and only the ones deemed most useful for chronological and cultural contexts are analyzed. More laws towards promoting materials studies would be needed to boost archaeozoology. 

Reference available on page 17



Announcing a New ICAZ Working Group

ZOOARCHAEOLOGY OF THE ROMAN PERIOD

We are very pleased to announce the approval of the Zooarchaeology of the Roman Period Working Group (RPWG), a Working Group focused on the Roman Period and opened to researchers working in neighbor periods and areas.

There is a thriving community of zooarchaeologists working on these issues (hitherto more than 60 researchers), who can benefit from the tighter collaborative links provided by this ICAZ Working Group focused on the zooarchaeology of the Roman period. The aim of the group is to form a network of exchange and collaboration across borders, in order to gain a better understanding of the interrelated research questions associated with this important historical period. As stated above, the group also encourages the participation of researchers investigating geographic areas that were outside the Roman Empire, but adjacent to and contemporary with it. Zooarchaeologists involved in late Iron Age

or early medieval research which is relevant to the understanding of the Roman period are also encouraged to join.

The first meeting of this Working Group will take place in Sheffield (UK), in November 2014. More details will be provided in the Spring ICAZ Newsletter!

Please contact one of the Coordinators if you are interested in this Working Group:

Silvia Valenzuela-Lamas (svalenzuela@ub.edu)

Umberto Albarella (u.albarella@sheffield.ac.uk)

You will also find more information on the webpage: <http://www.alexandriaarchive.org/icaz/workroman.htm>

We look forward to hearing from you,

Silvia Valenzuela and Umberto Albarella 

CALL FOR THE 13TH ICAZ INTERNATIONAL CONFERENCE BIDS

The International Committee (IC) of the International Council for Archaeozoology (ICAZ) invites bids for the organization of the 13th International Conference to be held in 2018. ICAZ conferences are prestigious events that will require great dedication and effort but should also provide unique rewards. Through the conference, we aim to raise the profile of archaeozoology in the country and geographic area where the meeting is held.


Organizers are fully responsible for the management of the conference, though they can expect to receive full support and advice from the ICAZ International and Executive Committees. There is no formal structure to the bid but we expect to receive details about:

- location
- dates
- type of venue
- conference, housing and reception facilities
- local transport and attractions
- conference programme (e.g. parallel sessions, research themes, posters)
- conference management
- funding

- track-record of the research group proposing to organise the conference.

An official letter of support from the host institution should also be supplied. This should specify the level of assistance that the institution is prepared to provide (e.g. financial support, availability of lecture rooms and/or other venues, staff time *etc.*).

Bids should be received by the end of January 2014 at the latest, preferably earlier, so that they can be evaluated in the months leading up to the ICAZ 2014 Conference in San Rafael, when a final decision on the venue will have to be taken. Bids from geographic areas where ICAZ conferences have not yet been held (Africa, Asia, Oceania) are particularly welcome, but proposals from any part of the world are encouraged.

For informal enquiries please contact any of the ICAZ officers: Laszlo Bartosiewicz, President (bartwicz@yahoo.com), Joaquin Arroyo-Cabrales, Vice-President (arromatu5@yahoo.com.mx), Christine Lefèvre, Secretary (lefevre@mnhn.fr) or Pam Crabtree, Treasurer (pc4@nyu.edu). 

ICAZ TREASURER'S REPORT

Table 1 ICAZ Financial Status

ICAZ Accounts	Balance Oct 2012	USD Equivalent 2012	Balance Oct 2013	USD Equivalent 2013
USD Sovereign	\$ 19,221.83	\$ 19,221.83	\$ 20,956.67	\$ 20,956.67
USD Nat West	\$ 22,108.41	\$ 22,108.41	\$ 22,108.41	\$ 22,108.41
Sterling Nat West	£ 4,518.95	\$ 7,331.05	£ 4,525.18	\$ 7,325.02
Euro Nat West	€ 5,066.82	\$ 6,561.54	€ 5,066.82	\$ 6,852.43
Total USD		\$ 55,222.83		\$ 57,242.53

By Pam Crabtree, ICAZ Treasurer
October 2013

As you can see from the attached table, ICAZ is in very good financial shape as we enter 2014. Our income exceeded our expenses during the 2012–13 financial year, and we have worked to reduce our banking expenses. We are well prepared to support the 2014 Conference in Argentina.

We have also completed an application to make ICAZ a '501c 3' public charity under the tax laws of the United States. This will allow us to accept donations and to offer US residents a tax deduction for those donations. The application will be submitted as soon as the US government shutdown is concluded.



Table 2 Expenses and income since last year for each account

Sovereign – USD			
Expenses	Newsletter 2013	\$	2,000.00
	Website	\$	175.00
	2014 Subvention	\$	1,000.00
	IC Subvention	\$	700.00
	Bank fee	\$	31.00
	Total Expenses	\$	3,906.00
Additions	Memberships	\$	5,640.84
NatWest – Sterling			
Additions	Memberships	£	6.23

Following the 1st announcement of the 6th ICAZ Archaeozoology, Genetics and Morphometrics Working Group Meeting, which will be held in Lisbon, March 26–28, 2014, we are now announcing that the website for this meeting is available at: <https://www.fc.ul.pt/en/conferencia/6th-icaz>

Join us for what we expect to be an exciting meeting in Lisbon! If you have any questions regarding registration and abstract submissions please send an e-mail to 6ICAZ.AGM@gmail.com.

Archaeogenetics is a growing interdisciplinary scientific area that has, in the last decade, undergone considerable improvement. Results now provide new perspectives concerning the domestication and subsequent evolution of animals. A combination of genetics and more traditional zooarchaeological studies are now bearing fruit. This meeting aims to promote discussions between archaeologists, zooar-

chaeologists and geneticists.

Contributions to the conference will be organized in thematic sessions. We plan to stimulate a broad exchange of information among workers from various fields related to both archaeology and genetics. Topics to be discussed include:

- Domestication and evolutionary trajectories of livestock;
- Genetic diversity and population structure of wild and domestic animals;
- Recognition of phenotypic trait variation in the past;

- Animal improvement and the exploitation of their so-called secondary products;
- Palaeogenomics and bioinformatics in zooarchaeology.

A balanced representation of taxa (*e.g.* cattle, horse, dog, and cat) as well as geographic regions is foreseen. Although the meeting is mainly related to archaeozoology, presentations from botanists and anthropologists are welcome.



NEOTROPICAL ZOOARCHAEOLOGY SESSION / 2ND ACADEMIC MEETING OF THE NZWG

By Pablo M. Fernández (CONICET - INAPL - UBA, Argentina), Mariana Mondini (CONICET - UBA, Argentina), and A. Sebastián Muñoz (CONICET - UNC, Argentina), Organizers and WG Coordinators (nzwg.icaz@gmail.com)

We are glad to invite you to participate in the session “Neotropical Zooarchaeology”/ the Second Academic Meeting of the Neotropical Zooarchaeology Working Group (NZWG-ICAZ), to be held at the 12th International Conference of ICAZ, September 22–27, 2014, in San Rafael, Argentina.

The session aims at bringing together various studies based on zooarchaeological records in the Neotropics – the biogeographical region ranging from southern North America to southern South America and adjacent islands. Taken as a whole, and considering the biotic and cultural particularities in this region, zooarchaeology allows an understanding of the evolution and diversity of human–animal interactions through time in this region. This brief encompasses a wide spectrum of research themes, areas, and problems, and the wider this spectrum, the richer the session will certainly be. Moreover, this session also seeks to offer a forum for people interested in these research problems to meet and exchange ideas.


Participation in the session includes oral presentations and posters. In both cases, an abstract of the proposal must be submitted online by February 28th through the conference web page: www.icaz2014argentina.com. The proposal must specify that it is aimed at session “Neotropical Zooarchaeology”, and we also request that a copy be sent to our e-mail as well: nzwg.icaz@gmail.com. The conference web page also contains the guidelines for abstracts and posters, and information about registration and financial support for participants, among other things. Please note

that the conference organizers have decided that for an abstract to be accepted and included in the final program, the registration fees for at least one of the authors must have been paid by March 30th, 2014.

As in the case of the First Academic Meeting, we intend to publish the presented papers in a volume that has already been accepted by Springer for their Environmental Science and Paleobiology program. The chapters will be subjected to peer-review, and the book will be issued in both electronic and printed formats.

We would also like to invite you to participate in the Workshop “Osteology and Osteometry of South American Camelids”, co-organized along with Katherine Moore and Guillermo Mengoni Goñalons, that will complement both the Neotropical Zooarchaeology and the South American Camelids sessions. In this open, hands-on workshop, we will discuss methodological aspects related to specimens or images brought in by participants, for example the ways that we can collect useful osteometric information by reducing inter-observer differences and standardizing measurement definitions. Besides, during this workshop we will be presenting the recent advances in the Osteometric Database of South American Camelids (<http://opencontext.org/projects/0404C6DC-A467-421E-47B8-D68F7090FBCC>), a NZWG initiative. This way, participants will be able to familiarize themselves with the way this open-access database works, as well as to discuss field definitions and other aspects.

You are all very welcome to participate, both in the session on Zooarchaeology in the Neotropics and in the workshop on the osteology and osteometry of the native camelids! Don’t hesitate to contact us if you have any questions.

Best wishes, especially for this Christmas and New Year season! 

AFRICAN ARCHAEOLOGY WORKING GROUP

Contributed by Hélène Jousse and Joséphine Lesur (WG Liaisons), Muséum national d'Histoire naturelle, France (jousse.helene@gmail.com, jolesur@mnhn.fr)

The African Archaeozoology Working Group (AAWG) was created in 2012, following a round table organized by H. Jousse and J. Lesur during the Africanist session of the 11th International Council for Archaeozoology held in Paris in August 2010. This workshop brought together researchers and students to discuss the importance of uniting African archaeozoological research and facilitating data exchange and collaborations between colleagues from different countries. Contributions to this session were published in 2011 in the first publication of the AAWG:

Jousse, H. & J. Lesur, 2011. *People and Animals in Holocene Africa. Recent Advances in Archaeozoology 2*. Reports in African Archaeology, Frankfurt am Main, 172 p.

To date, the AAWG has 36 members, mostly Africanist archaeozoologists from various African, European, and North American countries. Its activity focusses on sharing archaeozoological data. A first edition of the African archaeozoological database contains more than 20,000 measurements from the bones and teeth of 72 antelope species. This database is available to all the members of the AAWG. A broader database recording the presence of all African vertebrates from the Last Glacial Maximum is under development.

The next AAWG meeting will take place at San Rafael, Argentina, during the 12th ICAZ International Conference (September, 22–27, 2014). The session has already been accepted and is entitled 'Exploiting and Identifying African Wilderness'. See <http://www.icaaz2014argentina.com/> for more details. If you are interested in joining the AAWG and to participating at this session, please contact one of us.

ANIMAL PALAEOPATHOLOGY WORKING GROUP

<http://animalpalaeopathologywg.wordpress.com>

Contributed by Richard Thomas (WG Liaison), School of Archaeology and Ancient History, University of Leicester, UK (rmt12@leicester.ac.uk). Text by James Morris, University of Central Lancashire, UK.

Between 31st May and 2nd June 2013 over 40 delegates from across the globe met in a sunny Stockholm for the fifth meeting of the ICAZ Animal Palaeopathology Working Group. The title of the conference was 'Patterns of Skeletal Pathology in Wild and Domestic Animals in the Past and Present', and as can be expected this broad theme attracted a diverse mix of zooarchaeologists, archaeologists, and veterinary pathologists. Hosted by Ylva Telldahl, the conference took place on the beautiful campus of Stockholm University, positioned on the eastern shore of lake Brunnsviken. The conference opened on Friday after a magnificent lunch (happily a constant for the conference) with an opening address by Richard Thomas. After a quick history of the ICAZ Animal Palaeopathology Working Group and its development, Richard discussed what would be a running theme throughout the conference: the need for better clinical focus and to understand the

mechanics of pathology, so we can in turn understand the human causes. To do this we need to also understand pathology that is not caused by human action.

After the opening address the rest of the afternoon was themed on cranial and dental pathology. This started with a paper presented by Thierry Argant on the spatio-temporal patterns of third molar absence and reduced hypoconulids in domestic cattle. Working with colleagues, Thierry collected a large dataset covering Neolithic to post-medieval sites from across Europe. Analysis suggests that third molar absence and reduced hypoconulids are most common in the Iron Age and Medieval periods, possibly due to small breeding groups. There were also differences noted between types of sites, for example rural Roman sites in southern France had 25% third molar absence compared to 5% in towns. Thierry also highlighted that presence and absence reporting was not consistent in the zooarchaeological community, which is a real problem for these kinds of studies. The next paper presented by Kristiina Mannermaa discussed dental attrition and pathology on the horses from an Iron Age burial site at Levänluhta in Ostrobothnia, Finland. Although known for its Iron Age human burials, a number of complete horse burials are also present. However, this project dated the horses to the medieval period. The dental attrition suggested that the horses were eating soft fodder, mostly leaves, rather than grasses. Ola Magnell presented the final paper of the day, on paleopathological changes identified on the canines of pigs and cattle lower limb bones from Iron Age Uppåkra, Sweden. This spectacular site included a 3rd–10th century AD ceremonial house which had been rebuilt at least seven times. Outside the house was a bone layer, which included deposits of weapons and disarticulated human remains. The majority of the animal remains were cattle, with pathological changes associated with traction. Pig remains were also present and the canines had evidence of constriction near the cemento-enamel junction and remodeled roots. It was suggested this could be evidence of castration, perhaps to produce tastier meat (reduce boar-taint) and reduce aggression. However, it appears castration was relatively late in the animals' development, this combined with the iconographic evidence of boar from the site led Ola to suggest the inhabitants might have wanted their pigs to look like boars.

The late afternoon consisted of practical sessions in the department's excellent zooarchaeological laboratories. The delegates had great fun examining some of the pathological specimens on display, a particular highlight for me included a polar bear cub with rickets.

The conference restarted on Saturday, which also happened to be the day of the Stockholm marathon. The morning at the conference was slightly less energetic allowing the delegates an opportunity to view the many excellent poster presentations. These ranged from domestic turkeys, Dexter cattle of known life history, to pathology on ring seals from Chukotka, Russia. After a quick pose for the conference delegates picture the rest of the morning and early afternoon papers were themed around post-cranial pathologies.

The papers started with Richard Thomas presenting on his research utilizing a modern, feral herd of cattle from Chillingham, United Kingdom, to examine pathology that occurs in an unmanaged population. The results suggested head to head fight-

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Continued from page 7

ing produced fractures on the cervical vertebra and there was evidence of side impact fractures on the ribs. The pathological index of the Chillingham herd had similar values to prehistoric and Anglo-Saxon assemblages from Britain. Richard did not observe a single example of osteoarthritis, only one cow had stage 3 lesions and no stage 4's were present. Data from unmanaged herds can therefore be used to exclude age-affected bones, such as the third phalanx from the pathological index. The research also showed that proximal lipping on most foot elements and osteoarthritis were not correlated with age. The next paper by the conference's excellent host, Ylva Telldahl, continued the cattle theme. Ylva presented on the cattle remains from Eketop ring fort, southern Öland, Sweden. A large number of metacarpals and metatarsals from the site had been x-rayed to examine the correlation between age, sex and the density of the bones. No high-density values were noted with distal broadening of the metapodials. This led to an interesting discussion regarding how taphonomy could affect density values in the archaeological record. The final paper of the morning was by Pam Cross who presented an overview of horse pathology. A human osteologist by training, Pam reminded the audience that human osteology had a wealth of literature on pathology, and emphasized that confusion remains in both the zooarchaeological and human remains literature between developmental changes and pathology.

After an excellent lunch the papers started again with Torstein Sjøvold, presenting research comparing archaeological and feral horses. Torstein's paper drew attention to fractures in ossified costal cartilage. Over 100 archaeological specimens in the Norwegian natural history museum had healed costal cartilage fractures and these may be associated with the use of a girth on the horses. ICAZ President László Bartosiewicz presented a paper on the archaeological evidence of the 'puntilla' in large livestock. After some vivid descriptions of the varied ways of killing animals with a small knife, the puntilla in Spanish bull fighting, László highlighted cut marks on the left side of the axis as possible evidence of the use of a puntilla-like knife. This would require docile domestic animals, or for the animal to be very tired. This could represent an over-looked method of slaughter and similar marks need to be systemically sought and recorded. Unfortunately, Anne Hufthammer was unable to make the conference, so Fay Worley stepped in and presented a paper on the pathology of sheep used in the English Heritage Medieval Wool Project. This is a population of 356 sheep all of known age, sex, and environment. The sample examined for pathology showed a high number of rib fractures (16% of individuals), which is likely to be due to butting behavior. There was a correlation between age and fracture frequency and those sheep raised on a low nutrition plan were more likely to have fractures present. The majority of fractures were on the 9th and 10th ribs, due to the exposure of that area. Like Thomas's paper this highlighted the need to understand pathology caused without human intervention, it also shows that trauma does not indicate human abuse.

After a quick tea and coffee break the papers continued with Erika Gál's research on the pathology recorded from a number of early Bronze Age sites in south-west Hungary. Dental anomalies were noted from a number of species including cattle, pig and dog. Wild mammal pathologies were also present including a wild boar with a fractured fourth metacarpal. This was followed

by Diane Warren presenting research on 328 dog burials, most single burials from sites in North America. Vertebral osteophytes were noted and could be associated with dogs being used to carry packs. Tooth fractures increased in later periods, possibly due to a diet change with more bone in the dog's diet, perhaps due to a change in their status. This was followed by my own paper which presented research into the paleopathological records from Roman London. The research involved the synthesis of faunal datasets from 112 excavations and resulted in the collection of 770 pathological records of which 590 were usable. The paper highlighted the many problems with synthesizing pathological data, especially the way information is recorded. Most of the pathology was present on domestic animals with roe deer and ravens bucking the trend. Dental anomalies, mainly tooth absence, were the commonest pathology amongst domestic taxa, with the exception of chickens and dogs, where trauma was common. The final paper by Annelise Binois concerned the identification of epizootic disease. Previously Annelise trained and worked as a vet and she brought a number of interesting points to the audiences' attention; in particular, the case history approach and the importance of profiling disease by age, sex, breed, geography and season. These methods were applied to a deposit of sheep from the Paris region, consisting of a pit with 18 complete carcasses dating to the early 18th century. The taphonomic information showed this deposit occurred in a single event and the metrics suggested it was a single population of the same breed, possibly the same flock. After skillfully steering the audience through the different possibilities and diseases, it was suggested that anthrax was the likeliest cause.

The day was rounded off by the conference dinner in a Viking restaurant. After an excellent meal of reindeer heart, wild boar and elk, a Viking drinking horn competition between Torstein and László, along with much merriment, rounded off the evening. Sunday was a time for the many discussions to continue informally as we were led on an excellent excursion to the Viking city of Birka. This was a highly enjoyable conference and special praise must go to Ylva Telldahl, for organising such an enjoyable event. The conference was best summed up by László at the conference dinner when discussing the importance of the working groups to ICAZ. These smaller scale informal conferences allow ideas to be discussed, contacts made, and community bonds strengthened within a friendly and supportive environment.

ARCHAEOMALACOLOGY WORKING GROUP

<http://www.archaeomalacology.com/>

Contributed by Daniella E. Bar-Yosef Mayer (WG Liaison), Department of Maritime Civilizations, University of Haifa, Israel (baryosef@research.haifa.ac.il)

The Archaeomalacology Working Group (AMWG) has over 100 members worldwide, and new members are very welcome to join. The Working Group formed in 2002, and it meets every other year, alternating between an ICAZ conference and independent meetings. News and updates appear on our Facebook page: 'Archaeomalacology Working Group'.

Our next meeting is at ICAZ 2014 in San Rafael, Argentina, where the Archaeomalacology Working Group will have two sessions, reflecting our attempt to integrate our research with the

rest of archaeozoology. The sessions – one focused on artifacts, the other on middens – will be co-organized with other ICAZ members. The session on ‘Molluscs as a Record of Human-Environment Relationships: Environmental Reconstructions, Impacts, and Management’ will be coordinated by Christina M. Giovas, Zhanna Antipushina and Catherine F. West. Please contact Christina Giovas (cmgiovas@uw.edu) or Zhanna Antipushina (zh.antipushina@gmail.com) for details.

The second session on ‘Global Patterns in the Exploitation of Animal-Based Raw Materials: Technological and Socio-Cultural Issues’ will be coordinated by Natacha Buc, Annalisa Christie, Alice Choyke, and Vivian Scheinsohn and is sponsored by both the AMWG and the Worked Bone Research Groups of ICAZ. Please contact Natacha Buc (natachabuc@gmail.com) or Annalisa Christie (annalisa.christie@gmail.com) for details.

We would like to bring to the attention of AMWG members the existence of SAA’s Island and Coastal Archaeology Interest Group, with whom we have a great deal of overlapping interests. Please see their Facebook page and website. This fairly new organization reinforces the growing interest in the field of aquatic resources in archaeology.

AMWG has a biannual newsletter (available on our website). Janet Ridout-Sharpe, who initiated the newsletter about twenty years ago and served as its dynamic editor, recently stepped down and is replaced by Annalisa Christie. Please send your contributions to annalisa.christie@gmail.com.

Zhanna Antipushina from the Russian Academy of Sciences in Moscow and Annalisa Christie from Orkney College, UK are the group co-coordinators. Kat Szabo from the University of Wollongong, Australia, continues to serve as webmaster (<http://www.archaeomalacology.com>) and Daniella Bar-Yosef from Tel Aviv University’s National Collections of Natural History is liaison to ICAZ.

ARCHAEOZOOLOGY OF SOUTHWESTERN ASIA AND ADJACENT AREAS WORKING GROUP

<http://www.alexandriaarchive.org/icaz/workaswa.htm>

Contributed by Marjan Mashkour (WG Liaison), Centre national de Recherche Scientifique and Muséum national d’Histoire naturelle, France (mashkour@mnhn.fr)

The 11th International Meeting ASWA (Archaeozoology of Southwestern Asia and Adjacent Areas) Working Group was held at the University of Haifa between June 23rd–28th, 2013 (aswa.haifa.ac.il). The conference was sponsored by the Israel Science Foundation, the Faculty of Humanities and Zinman Institute of Archaeology at University of Haifa.

The meeting hosted about 60 researchers from over 40 research institutes from four continents and from more than 20 nations. More than 100 papers were presented. Most of the presented work (>75%) was from archaeological sites outside of Israel, including recent studies in Syria, Turkey, Jordan, Egypt, Sudan, Uzbekistan, and India. This point emphasizes the internationality of the meeting.

A central theme of ASWA 2013 was ‘Bones and Identity: Reconstructing Social and Cultural Landscapes in the Archaeozoology of Southwest Asia’, reflecting a current and growing

interest in the use of animal remains as proxies for reconstructing social and cultural diversity among early complex and hierarchical societies. Emphasizing diversity and originality, the papers presented in the conference touched a plethora of issues, such as the divides between foragers and farmers in Levantine prehistory, different cultural entities and their food and butchery preferences in the Bronze and Iron Age of Canaan, sectarian and orthodox cuisines in the Second Temple Period, and pilgrim souvenirs in the Medieval period.

The five-day conference consisted of three days of oral and poster presentations and two excursions days. The excursions included a visit to the Mount Carmel Animal Sanctuary Nature Reserve and the World Heritage sites of Mount Carmel Caves and the ancient city of Akko. These field days included guided tours to some of the key-sites that are currently studied by members of the research team at the Laboratory of Archaeozoology at University of Haifa.

Our tentative plan is to publish the conference proceedings by June 2015.

Text kindly provided by Dr. Guy Bar-Oz in the name of ASWA organizing committee and edited by M. Mashkour.

FISH REMAINS WORKING GROUP

<http://www.cs.otago.ac.nz/research/foss/ICAZ/icaz.htm>

Contributed by Łászló Bartosiewicz (WG Liaison), Department of Archaeometry, Institute of Archaeological Sciences, Loránd Eötvös University, Hungary (bartwicz@yahoo.com)

After the successful conclusion of the 17th conference of our Working Group in Tallinn, Estonia (16–21 September 2013), the following report was submitted by Richard C. Hoffmann and Lembi Lõugas, organizer of the conference, with important remarks on databases by Philippe Béarez and Wim Van Neer:

“The Fish Remains Working Group [henceforth FRWG] held its 17th meeting at the Institute of History, University of Tallinn, Estonia, 16–21 September 2013, with attendance by enthusiastic fish specialists of doctoral candidate to emeritus professor ranks. Lembi Lõugas and a hard-working support team of Heidi Luik, Eve Rannamäe, and Liina Maldre from the Institute of History saw to it that 33 participants from 22 countries enjoyed a smoothly run programme of papers, posters, and excursions to learn more about the archaeology of fish and fisheries and Estonia’s distinctive natural and human history and archaeology.

Participants heard, viewed, and discussed a varied array of 24 oral papers and 10 posters which more or less converged around several common themes or topics. Devoted to the greater Baltic region were the papers of three whole sessions, and one session each treated topics or sites in Latin America, in Southern or Mediterranean Europe, and around the North Atlantic. Two sessions concentrated on problems of taphonomy and interpretation. In temporal terms both the Neolithic and medieval/early modern Europe each drew attention of seven papers/posters while the Mesolithic, classical antiquity, and pre-Columbian America had three each. Many presentations engaged questions of applied taphonomy to ascertain the socio-cultural significance of finds, sites, and/or particular taxa. Pike (*Esox lucius*), salmon (*Salmo salar*), and various clupeid taxa drew recurring attention; the gadids so popular at many former meetings of this group were

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less in evidence in Tallinn. With presenters offering perspectives from stable isotope studies, new excavations, sediment cores, taxonomy, statistics, contemporary practice, and historical records, the programme continued to feature the real interdisciplinarity which is for many a favorite characteristic of the FRWG.

Joint publication of many presentations is intended, with several potential opportunities now being explored. Other of the papers will appear elsewhere or were preliminary reports on projects still to achieve publishable form.

Consensus was, moreover, reached on the need for a new collection of data on the osteometry of fishes that can be used for estimating the size of fish from measurements of individual bone elements. The website OSTEODATABASE (<http://www.mnhn.fr/osteodatabase/>), hosted by the Natural History Museum in Paris, already provides pictures of individual fish bones and is linked to FISHBASE (<http://www.fishbase.org>). It was agreed that raw measurements existing for various taxa will be compiled and made accessible electronically through this website. People willing to participate in this initiative are invited to send their data to either Philippe Béarez (bearez@mnhn.fr) or Wim Van Neer (wvanneer@naturalsciences.be).

To conclude the business of the meeting, participants accepted the proposal of Sónia Marques Gabriel (sgabriel@igespar.pt) to host the 2015 meeting of the group in Lisbon, Portugal, at dates to be determined.

Participants further enjoyed a reception in the refurbished tower of Tallinn's medieval city wall, courtesy of the University of Tallinn, and an afternoon's excursion to the Museum of Coastal Folk and the Open Air Museum on Viimsi peninsula, both with much ethnographic and historical material on local fisheries. Those who could remain longer in Estonia explored natural, archaeological, historical, and scenic sites on Saaremaa, the largest of Estonia's western islands. As is customary at FRWG events, some participants seized the occasion to augment their comparative collections with specimens from the East Baltic and Gulf of Finland."

As agreed in Jerusalem, proceedings of the 16th Meeting of the ICAZ Fish Remains Working Group in Israel will be published in Volume 22 of *Archaeofauna*. Proofs have already been circulated by Arturo Morales and according to his most recent report

the volume is due to appear in October 2013. It will contain 16 papers from the meeting and will cost 40€ with a 25% discount to ICAZ members (30€). The distributor of the volume is Librerías Portico (portico@porticolibrerias.es).

GRUPO ZOOARQUEOLOGÍA DE CAMÉLIDOS

<http://www.wbrg.net>

Contributed by Guillermo Luis Mengoni Goñalons (WG Liaison), Instituto de Arqueología, Facultad de Filosofía y Letras, Universidad de Buenos Aires, Argentina (wmengoni@yahoo.com.ar)

A symposium on South American Camelids (SAC) was recently organized during the III Congreso Nacional de Zooarqueología Argentina (IIICNZA) that took place between September 9–13, 2013. The meeting was convened by the Instituto Interdisciplinario Tilcara of the Facultad de Filosofía y Letras, Universidad de Buenos Aires (UBA) and held at the picturesque town of Tilcara, Quebrada de Humahuaca (Jujuy province), Argentina.

The theme of the symposium was 'South American Camelids: Past and Present from an Integrated Perspective' (Camélidos sudamericanos: pasado y presente desde una perspectiva integradora). The meeting was coordinated by Pablo H. Mercolli, Daniel E. Olivera, Guillermo L. Mengoni Goñalons, and Hugo D. Yacobaccio from the Facultad de Filosofía y Letras, UBA. The presentations were organized in two sessions: (1) Hunting and the appearance of domesticated forms, and (2) pre and post-Hispanic husbandry and present management.

A total of eleven oral presentations were made. These included: a discussion of case studies based on several zooarchaeological indicators (osteometrics, isotopes, fiber, etc.) from the Puna of NW Argentina centered on early and middle Holocene occupations (A. Marozzi, M. Mondini, E. L. Pintar & M. C. Reigadas); early agropastoral societies (J. Grant & D. Olivera); and Late period pastoral contexts (C. Samec & H.D. Yacobaccio). There were also presentations on Late period occupations of the eastern valleys of NW Argentina (M. Ahumada & E. Moreno); camelid variability at a Formative site at Quebrada de Humahuaca (P. Valda); and camelid management at Late Period sites of Quebrada de Humahuaca (P. Mercolli). Other subjects included were: osteometrics and guanaco size variability (G. L. L'Heureux & J. Cornaglia



Participants at the 17th Meeting of the Fish Remains Working Group, Estonia

Fernández); fiber analysis and camelid classification (M. C. Reigadas); diet and environmental variability of Central-West Argentina (A. F. Gil, G. A. Neme, A. Ugan, C. Otaola, M. Giardina & T. Michieli); guanaco hunting and fur trade in Southern Patagonia (G.L. Mengoni Goñalons); vicuña ecology, management and sustainability (Y. Arzamendia; V.Rojas; J. Baldo).

Next year a symposium on SAC will be coordinated by Kate M. Moore (University of Pennsylvania Museum) and Guillermo L. Mengoni Goñalons (UBA-CONICET) at the ICAZ 2014 Conference in San Rafael (Mendoza), Argentina. The session is titled 'South American Camelids: Zooarchaeology of Co-evolution' (Los Camélidos de Sudamérica: zooarqueología de co-evolución), and Daniel E. Olivera (INAPL-CONICET) and H.D. Yacobaccio (UBA-CONICET) will act as discussants. The camelids of South America are an important case of early animal domestication and were key to the expansion of complex societies in the Andes. They also have been key resources for hunting and foraging peoples across a broad region and long period as well as important influences on vegetation history of that region. Camelids are now the focus of sustainable harvesting for luxury fibers on a global scale. Using zooarchaeology analytical tools in conjunction with insights from molecular data and the biology of contemporary populations, we seek to understand the co-evolution of these species with human populations.

A call for papers has been opened and abstracts are welcomed until 31st March, 2014. For any further information please contact Katherine M. Moore (kmmoore@sas.upenn.edu) or Guillermo L. Mengoni Goñalons (wmengoni@yahoo.com.ar).

Additionally a workshop on SAC osteology and osteometrics will take place at the ICAZ Conference 2014 and will be organized by K. Moore and M. Mondini (NZWG).

NABO WORKING GROUPS

<http://www.nabohome.org/>

Contributed by Thomas McGovern (WG Liaison), Associate Director CUNY Human Ecodynamics Research Center (HERC), New York, USA (thomas.h.mcgovern@gmail.com)

North Atlantic Biocultural Organization (NABO) is an international, interdisciplinary research and education cooperative formed in 1992. It participates as a Working Group in ICAZ as a regional association promoting zooarchaeology and the integration of faunal research into multi-disciplinary projects in the field and laboratory in our region, which on the circumpolar rim connects the Barents Sea and Labrador, with many extensions southwards. NABO has sponsored ICAZ zooarchaeology projects directly and by working in collaboration with other ICAZ Working Groups (notably Fish and Bird Working Groups). Our objectives for ICAZ have been initially to aid North Atlantic zooarchaeologists with basic identification tools (especially for the more challenging birds, fish, and sea mammals), promote comparable recording and reporting (through common data management packages), and to work closely with excavators to upgrade and standardize recovery strategies (sieves and flotation everywhere).

We also work to more effectively integrate zooarchaeology with geoarchaeology, archaeobotany, and with 'normal' archaeology in our common investigations of the past within our wet and windy region. NABO also seeks to bridge natural science / social science divides and to promote more effective interdisciplinary

as well as international communication. NABO general meetings (New York 1992, Glasgow 1994, Tromsø 1996, St John's Newfl. 1997, Reykjavik 1996, 1997, Akureyri 1999, Glasgow 2001, Copenhagen 2004, Québec 2006, Bradford 2008, Edinburgh 2010, 2011, Akureyri 2013) always have major zooarchaeological participation and smaller ad hoc workshops take place every year. NABO sponsors field schools, public outreach, and community involvement, and encourages and supports students at all levels.

An early joint NABO / ICAZ project was the development of a simple but flexible bone recording and data management package now called NABONE (9th edition is available for download as freeware), following a very productive meeting of 27 active North Atlantic zooarchaeologists held at City University of New York in 1997. This package (now improved and lab-tested by a wide range of users) is based on MS Access and Excel and has provided a useful common recording and data storage and manipulation platform that has been widely adopted in the North Atlantic area. Full NABONE teaching packages (including osteological identification aids and class problems) have been mailed on DVD worldwide (653 sets as of Fall 2013, contact thomas.h.mcgovern@gmail.com for this free package). The basic package is also available for free download from the NABO website: <http://www.nabohome.org/>.

A NABO / ICAZ Fish Remains WG collaboration in 2003–2006 has resulted in another digital tool: FISHBONE 1.1 (freeware download available) which provides digital images and illustrations of multiple elements of the North Atlantic fish species most commonly encountered in archaeofauna in the area (and a useful cookbook as well). FISHBONE has helped standardize identifications in our region and has contributed to the widespread replacement of earlier (very restricted) element identifications to species level with a wider approach that has promoted new perspectives on early commercialization of fisheries in the North Atlantic and detected the source of the ca AD 1000 "Fish Event Horizon" in Britain and NW Europe (another Viking impact from Scandinavia).

In March 2009 NABO sponsored a bird and marine mammal working session hosted by the University of Edinburgh with participation by scholars from ICAZ Bird Working group, several UK science centers, and the Icelandic Institute of Natural History. One result for ICAZ zooarchaeology was the extremely generous posting by Dr. Derek Yaldon of his monumental Leverhulme Trust funded British Isles Archaeological Bird Database on the NABO website as a free download.

In April 2012, NABO sponsored a half day session at the Society for American Archaeology meetings in Memphis (organized by Drs. Ramona Harrison and Ruth Maher) which is now moving towards publication. The session presented some interesting combinations of zooarchaeology and high resolution climatology, zooarchaeology and long term sustainable use of waterfowl, and osteology and stable isotope research.

In March 2013, NABO collaborated with the GROUPE DE RECHERCHE EN ARCHÉOMÉTRIE OF THE CELAT of Université Laval in Quebec in its Journée d'étude en Archéométrie symposium. This was hosted by Dr.s Jim Woollett, Allison Bain, and Reginald Auger and featured presentations in systematic regional approaches to comparing archaeofauna, zooarchaeology and modeling, and exciting new results from stable isotopes and

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ancient DNA.

NABO will collaborate with Université Laval in the January 2014 Society for Historical Archaeology meetings in Quebec, and George Hambrecht (University of Maryland, USA) is organizing a NABO sponsored session on 'Roots of the Anthropocene.' NABO and the University of Maryland will also jointly sponsor a three day meeting in November 2013 on the contributions of zooarchaeology and environmental archaeology to investigating the controversial origins of the Anthropocene concept and the potential for an integrated approach to the archaeology of global change during the past 500 years. Those interested in participating and organizing sessions can contact George at ghambrecht@gmail.com.

NABO has sponsored a graduate level field school in international and interdisciplinary archaeology in Iceland in collaboration with Archaeological Institute of Iceland, the University of Aberdeen, and CUNY since 1997. NABO has collaborated closely with the University of Bradford in an undergraduate level field school in Rousay in collaboration with Orkney College since 2009. Students interested in hands-on Zooarchaeology in a northern fieldwork context should check the NABO website for further information and links to more on these ongoing training opportunities.

In 2007–2010 NABO represented ICAZ in the International Polar Year program (<http://www.ipy.org/>) with coordinated field and laboratory research in Faroes, Shetland, Iceland, and Greenland (funding generously provided by US National Science Foundation, Canada, and Denmark). This IPY was the first to incorporate social science and the participation of northern residents in the international science effort, and the first to actively investigate human impacts on the polar regions. The NABO teams were able to share data, students, and expertise effectively in large part due to the prior work in developing comparable data recovery and recording methods as part of ICAZ and the work of the field schools in training an excellent cadre of younger professionals who see international cross disciplinary collaboration as normal science. IPY field reports and unpublished zooarchaeology reports on work in Faroes, Shetland, Orkney, Iceland, and Greenland are all available for download at the NABO website. The NABO website also now features a Google Earth based project reporting system to display and provide access to project data and zooarchaeology reports, and we will be glad to post additional links and findings on this system.

In 2012–2014 NABO was provided with \$1.3 million by the US National Science Foundation to continue and expand collaborative international interdisciplinary excavations, laboratory work, and modeling efforts aimed at systematic comparisons between “long term human ecodynamics” in Iceland and Greenland. These two Scandinavian communities were settled in the Viking Age by a common Nordic/Celtic population, but rapidly diverged economically (and we believe socially as well) and of course their pathways came to very different endings. NABO collaborators have launched a series of ambitious new field and laboratory collaborations under this Comparative Island Ecodynamics project and are attempting to combine rescue excavation, innovative laboratory analysis, and active public outreach and engagement. Additional collaborators are most welcome, and updates on progress will be regularly posted on the NABO website.

In 2009–2010, NABO was tasked by the US National Science

Foundation to develop a series of meetings aimed at coordinating efforts to incorporate archaeology into a wider study of long term human ecodynamics and global change. This effort produced a major meeting at Eagle Hill Maine in October 2009, and a series of follow up meetings organized by Ben Fitzhugh. These meetings have led to the formation of a new Global Human Ecodynamics Alliance (GHEA) in 2010 aimed at promoting more effective use of the long term perspective of the past to serve present and future. In 2013 GHEA is now a recognized participant in the IHOPE (Integrated History and future of People on Earth) international initiative based in Sweden and chaired by Carole Crumley (<http://www.aimes.ucar.edu/ihope/>). A GHEA volume edited by Payson Sheets and Jago Cooper was published in 2012, with subvention from NSF to Payson allowing distribution as a low cost paperback, e-book, and free pdf download for students and practitioners. (Cooper, J. & Sheets, P. 2012 (eds). *Surviving Sudden Environmental Change: Lessons From Archaeology*. University of Colorado Press, Boulder). ICAZ members are well placed to contribute to this new initiative, and are urged to check out the GHEA website and join this new group at <http://gheahome.org>.

NABO 2013 General Meeting was a highly successful open meeting hosted by the Stefansson Arctic Center of the University of Akureyri July 13–15th 2013, with over 70 registered participants and 128 attending on the day. The majority of the presentations and posters will be available for download from the NABO website shortly, including a number of zooarchaeological presentations on archaeofauna from Scotland, Faroes, Iceland, and Greenland.

The next NABO sponsored Global Human Ecodynamics Alliance Open Workshop 2013 is scheduled for November 4th–6th 2013 at the University of Maryland, College Park. It is hosted by Dr. George Hambrecht, Anthropology Department, University of Maryland, College Park. 0111 Woods Hall, University of Maryland, College Park, Maryland, 20742. E-mail: ghambrecht@gmail.com. Skype: George Hambrecht. This meeting is supported by the US National Science Foundation Arctic Social Sciences Program, the Nordic Network for Interdisciplinary Environmental Studies (NIES) and the University of Maryland.

NABO is now participating in a Circumpolar Networks program through the IHOPE (Integrated History and future of People on Earth, see <http://ihopenet.org/>). The IHOPE network is now led by Carole Crumley and is based in Sweden, and provides an IGBP–recognized pathway for interested zooarchaeologists and other scholars of the past to participate in the upcoming Future Earth Program. NABO/ IHOPE sessions are planned at the 2013 American Anthropological Association meetings in Chicago (Nov. 23rd 2013) and at the 2014 Society for American Archaeology meetings in Austin TX (April 2014).

NABO remains an informal research and education cooperative, membership is free and open to all. Please regularly check the NABO website for new reports, announcements, and collaborative projects.

Unpublished NABO zooarchaeological lab reports (2001–2013) are available as free pdf downloads, and more are being regularly added, and a selection of important unpublished doctoral theses also available for free download. The NABO website in 2012 has been cited by UK evaluators as an “excellent example of open scholarship and collaborative science”. All freeware products and pdf reports mentioned above are available at the NABO website.



<http://www.alexandriaarchive.org/bonecommons/exhibits/show/nzwg>

Contributed by Mariana Mondini (WG Liaison), Laboratorio de Zooarqueología y Tafonomía de Zonas Áridas (LaZTA), Museo de Antropología UNC-CONICET, Córdoba, Argentina (mmondini@filo.uba.ar)

The ICAZ Neotropical Zooarchaeology Working Group (NZWG) keeps growing and has now more than 140 members. The publication of the First Academic Meeting of the NZWG, held at the Universidad de Chile in June 2012, is being issued in a 2014 special issue of the *Etnobiología* journal (Asociación Etnobiológica Mexicana / Sociedad Latinoamericana de Etnobiología).

The Second Academic Meeting of the NZWG will be held within the ICAZ 12th International Conference in San Rafael, in September 2014, as the session 'Neotropical Zooarchaeology'. The aim of the session is to gather research taking into account the particularities of human–animal interactions and the resulting record in the Neotropics – the biogeographic region ranging from southern North America to southern South America and adjacent islands – through time.

Also, we are co-organizing a Workshop on Osteology and Osteometry of South American Camelids along with the organizers of the session on South American Camelids at the ICAZ 2014 International Conference. This will be an open, hands-on working session on methodological approaches to the study of these artiodactyls, both wild and domestic.

The Osteometric Database of South American Camelids project has just been launched online, edited by the NZWG coordinators and Sarah Witcher Kansa of Alexandria Archive: <http://opencontext.org/projects/0404C6DC-A467-421E-47B8-D68F7090FBCC>. This is an open-access database of osteometric measurements on these taxa that will allow access to data that at present are informally circulating or that are scattered in a range of different publications, and even some that would be published for the first time here. Data authors will be credited for their contributions. It will include not only modern specimens, but also archaeological and palaeontological ones. At the ICAZ 2014 Workshop on 'Osteology and Osteometry of South American Camelids', the database will be demonstrated to facilitate further collaboration on this project.

Finally, the fourth NZWG Newsletter was issued in October 2013. This Newsletter and all the info on the NZWG can be found at the Working Group web page: <http://www.alexandriaarchive.org/bonecommons/exhibits/show/nzwg> (maintained with the assistance of Sarah Witcher Kansa).

We invite interested participants in the ICAZ session and workshop and in the database to contact the coordinators. Also, if you are interested in zooarchaeology in the Neotropics generally and would like to receive the NZWG Newsletters, you just need to e-mail us. Please spread the word!

STABLE ISOTOPES IN ZOOARCHAEOLOGY WORKING GROUP

<http://sizwg.wordpress.com>

Contributed by Suzanne Pilaar Birch (WG Liaison), Joukowsky Institute for Archaeology and the Ancient World, Brown University, USA (suzanne_birch@brown.edu)

The Stable Isotopes in Zooarchaeology Working Group was formed last year after a successful one-day conference in the UK, 'Integrating Zooarchaeology and Stable Isotope Analyses'. The conference proceedings and additional papers have now been published as a special issue in the June 2013 volume of the *Journal Archaeological and Anthropological Sciences*: <http://link.springer.com/journal/12520/5/2/page/1> (paywall).

One major new development is the working group website, sizwg.wordpress.com. The website currently serves as a source of information for non-specialists and specialists alike. In addition to a description of the group and our aims, the website has a growing bibliography of references for those interested in getting started in zooarchaeology and stable isotope analysis. We are also building a list of laboratories worldwide that specialize in stable isotope analysis for archaeology. Submissions are being encouraged for both of these resources and we are currently soliciting contributors for our new blog.

We are looking forward to getting together next year at the 2014 ICAZ meeting in San Rafael, but it's never too early to start planning future working group meetings! If you have a venue suggestion or would like to host the next meeting, please get in touch with the WG Liaison, Suzanne Pilaar Birch.

Finally, the working group now has over 40 members. Those who are interested can sign up for the listserv by e-mailing zooarchisotopes@jiscmail.ac.uk.

TAPHONOMY WORKING GROUP

<http://www.alexandriaarchive.org/icaaz/worktaphonomy.htm>

Contributed by Ana Belén Marín (WG Liaison), University of Cantabria, Spain (anabelen.marin@unican.es)

The 2nd Taphonomy Working Group was held in Santander (Spain) last September 2012. You can view the videos of each speakers (<http://www.taphowgicaz.unican.es/>) and some pictures (<http://alexandriaarchive.org/bonecommons/items/show/1928>) online. The proceedings of this meeting will be published in a special issue in the journal *Quaternary International*. Indeed, some of the papers are already online and available for download. The next meeting is planned for 2016 and positive contact has already been established with the French CNRS 'Groupement de Recherche (GDR 3591) 'Taphonomie, Environnement et Archéologie' (resp. J.P.Brugal).

Continued on page 14



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WORKED BONE RESEARCH GROUP

<http://www.wbrg.net>

Contributed by Alice M. Choyke (WG Liaison), Aquincum Museum/Department of Medieval Studies, Central European University, Budapest, Hungary (choyke@ceu.hu)

Since the successful meeting of the Worked Bone Research Group in Zhengzhou, China, there have been two important events that directly concern the WBRG. First, the proceedings from the 8th meeting of the group in Salzburg have been published by Felix Lang (2013): *The Sound of Bones. Proceedings of the 8th Meeting of the ICAZ Worked Bone Research Group in Salzburg 2011*, Archaeo Plus. Schriften zur Archäologie und Archäometrie der Paris Lodron-Universität Salzburg. This volume is the sixth set of proceedings to be published in connection with our bi-annual meetings. Our Chinese colleagues have also recently put out a call for papers. Also very recently published is a volume by Krish Seetah and Brad Gravina published by the MacDonald Institute for Archaeological Research and entitled *Bones for Tools-Tools for Bones: The Interplay between Objects and Objectives*

Secondly, thanks to the serious efforts of Christian Kuchelmann and Andi Jacomet, the website (<http://www.wbrg.net>) has received a new look and is now operating even more smoothly than before. The site is supported by the Institut für Prähistorische und Naturwissenschaftliche Archäologie (IPNA) in Basel, Switzerland and the laboratory at TRACES – Université Toulouse Le Mirail I in France. Any laboratory also willing to contribute financially to the upkeep of this very useful website should contact Christian Kuchelmann (info@knochenarbeit.de).

The 10th Worked Bone Research Group will be held in Beograd in 2014 August–September and again in Argentina (San Rafael, Mendoza, September 2014). The session, entitled ‘Global Patterns in the Exploitation of Animal-Based Raw Materials: Technological and Socio-Cultural Issues’, will be organized by Natacha Buc, Annalisa Christie, Alice Choyke, and Vivian Scheinsohn. The session has been accepted for inclusion in the scientific program of the conference. The proceedings of the Worked Bone sessions on raw materials (Paris, ICAZ), ‘From these Bare Bones’, will soon be published by Oxbow and be available by the ICAZ meeting in Argentina. 



NEWS AND NOTES – MEMBERS

Benjamin Arbuckle has just taken a new position in the Department of Anthropology at the University of North Carolina at Chapel Hill, and he is in the process of setting up a new zooarchaeology lab there. If anyone is passing through the area please stop by. His new e-mail address is: bsarbu@email.unc.edu.

He is also happy to announce that he has received funding from the US National Science Foundation for a grant entitled “Strategies of Equid Exploitation and Horse Domestication in Ancient Turkey”. The three-year project will combine excavation and recovery of equid remains from two sites in Turkey with the analysis of a variety of datasets including ancient DNA, paleopathology, isotopes, starch and phytoliths recovered from teeth, and biometrics to document the uses of equids in late prehistoric and early historic Anatolia.

Dr. **Hans-Volker Karl** would like to announce the identification of **stenonine characteristics in horses from the Thuringian Kingdom**. Significant stenonine features were detected on the lower teeth of horses from horse graves of the Thuringian Kingdom (6th century) at Erfurt Gispersleben, findspot Kleiner Roter Berg

(see figure), and other similar sites.

This indicates the presence of a different wild form that was involved domestication. Besides the well-known examples from Thuringia, Pleistocene equids such as *Equus altidens* and *Equus suessenbornensis* also belong to this group. Dr. Hans-Volker Karl would be grateful if other ICAZ members would share similar observations. His contact details are:

Dr. Hans-Volker Karl (hvkarl@web.de)
Landesamt für Denkmalpflege und Archäologie, Referat Archäozoologie,
Humboldtstraße 11, 99423 Weimar
c/o Friedrich-Schiller-Universität Jena,
Bereich Ur- und Frühgeschichte, Lößdergraben 24a, 07743 Jena.




Figure 1 Horse mandible from Erfurt Gispersleben, findspot Kleiner Roter Berg (horse burial 60, find 519 / no.181/03)

By Ian Armit, Jo McKenzie, and Julia E. M. Cussans

Broxmouth in East Lothian is one of the most intensively studied hillforts in the UK. Excavated in the late 1970s, the archive subsequently passed to Bradford University, where a major programme of analysis has re-examined the site in the context of current understanding of the Iron Age. The results will be published shortly in the volume *An Inherited Place: Broxmouth Hillfort and the Southern Scottish Iron Age* (Society of Antiquaries of Scotland), by Ian Armit and Jo McKenzie. The volume tracks the complex biography of Broxmouth from the Early Iron Age to the Roman period. Important finds include a series of remarkably well-preserved roundhouses with evidence for lengthy occupation; periodic rebuilding and the burial of votive deposits; a richly detailed picture of the evolution of the elaborate hillfort entrances; a remarkable artefactual assemblage including materials such as bone and antler that seldom survive in the region; an exceptionally rare Iron Age cemetery; evidence for violent death and the taking of human trophies; and a rich faunal assemblage that allows us to reconstruct the economic basis of life at Broxmouth in unusual depth.

The site produced by far the largest and most important Iron Age faunal assemblage in the region; an assemblage only paralleled in northern Britain by the rich faunal assemblages of Atlantic

Scotland. This large archaeozoological assemblage included large mammal bones (Julia E. M. Cussans, with contributions from Pam Cross, Kim Hosking, Jo McKenzie, and Jeanette Wooding), micro-mammals (Lenny Salvagno), birds (Lenny Salvagno), fish (Hannah Russ), crustacea (Hannah Russ) and marine molluscs (Ian Armit, Paul Renner, Steffan Golby and Jo McKenzie). Animal exploitation seems to have been heavily focussed on domestic mammals, particularly cattle, which provided the bulk of the dietary protein. Sheep and goats were both identified the latter in smaller numbers and declined over time. The mortality pattern for sheep is quite different to that seen elsewhere in Scotland and is tentatively interpreted as indicating that sheep dairying formed an important part of the economy. Pigs and pork joints appear to have been brought in from outside the site, sometimes as tribute animals. Wild mammal, bird, and fish bones show limited but consistent exploitation of wild resources including deep sea fishing. Shellfish, as well as being eaten, seem likely to have been used in an industrial process such as lime-wash production.

Understanding of the long-term development of the site is made possible by the development of a new Bayesian chronology, allowing us to detect change at the scale of a human lifetime. What emerges is a richly detailed picture of life at Broxmouth as the site passed from one generation to the next across almost a millennium of continuous occupation. 

NEWS FROM ROMAN VINDOLANDA

By the time this Newsletter reaches our membership, the long-awaited Vindolanda Excavation Report for years 2009–2012, edited by Andrew Birley, will be available. Of particular interest is the quadrat-sampling study of the subfloor of the Roman granary; zooarchaeologists will want to see Deb Bennett and Robert M. Timm's report of the owl-pellet microfauna, as well as Jacqui Huntley's illuminating paleobotanical report. Vindolanda is now known to have been continuously occupied for more than 400 years, during which at least nine forts were built on the site. To obtain the volume go to www.vindolanda.com and click on "bookstore".

Deb Bennett's paper on dog tracks and trackways in tiles from the 2nd-century Roman bathhouse at Vindolanda was published in *Archaeofauna* in 2010. The report is some 40 pages long and contains much information concerning quadrupedal locomotion in dogs and horses, plus illustrations and many photos. Anyone wishing a .pdf may write to office@equinestudies.org to request a copy.

The Vindolanda Trust is now sponsoring "institutes" which are one to five-day short-courses on topics of interest to students of archaeology. An archaeological illustration course has been available once or twice per year for the past several years, and in June of 2014 Deb Bennett will offer a one-day class in bone identification. Interested volunteers and amateurs as well as university students are welcome to enroll. Email the "contact us" address at www.vindolanda.com for enrollment fee and exact dates.



BONE ARTIFACT WORKSHOP

Workshop at the 9th International Congress on the Archaeology of the Ancient Near East Basel, Switzerland, June 9–13 2014


Artifacts made out of Bone and Related Materials:
Manufacture, Typology and Use

Organized by: Canan Çakırlar (University of Groningen) and Hermann Genz (American University of Beirut)

Contact: hg09@aub.edu.lb

Artifacts made out of materials of faunal origin (bone, ivory, horn, antler, mollusc shell, etc.) are commonly encountered in excavations in the Ancient Near East. While some groups of artifacts, such as ivory carvings or engraved *Tridacna* shells have received considerable attention, mainly because of their artistic significance, more mundane, yet more abundant objects such as tools and simple jewelry have often been neglected. To address this imbalanced situation, we would like to organize a workshop focusing on artifacts made of bone and related materials from the Ancient Near East from the Neolithic to the Islamic Period.

The discussion will focus on the following aspects:

- Identification of raw materials and manufacturing methods (including possible workshop remains);
- Retrieval practices on the excavation (how, when and by whom are artifacts identified? Especially ad-hoc tools with limited alterations may only be identified through a detailed faunal study);
- Exchange in raw materials or finished items (ivory, shells);
- Typology and chronology of specific artifact categories;
- Functional aspects (including use-wear studies);
- Contextual discussion. 

Contributed by Terry O'Connor, Department of Archaeology, University of York, UK and Richard Thomas, School of Archaeology and Ancient History, University of Leicester, UK

The chicken is native to Southeast Asia but over the last 8,000 years it has been transported by people around the world – no other livestock species is so widely established. The chicken's eastward spread from Asia to the Americas has been the subject of many studies; however, its diffusion to the West has received much less attention. There have been a few small scale surveys documenting the spread of chickens across Europe, but there has been no comprehensive review about the rapidity of the spread and its cultural and environmental impacts. No ancient (and little modern) DNA work has been published for European chickens, nor have there been any isotopic studies focussed specifically upon their diets or whether they were bred locally or traded. Given the social and cultural significance of this species (whether as a provider of meat, eggs or feathers, its widespread use in cockfighting or its association with ritual, magic and medicine), a detailed analysis of the natural and cultural history of chickens in Europe is long overdue and this has genuine potential to provide cultural data of the highest quality and relevance for a range of disciplines and audiences.

To elucidate the circumstances and meaning of the westward spread of chickens from their origins in Southeast Asia to Europe (from the late prehistoric period to the present), a team of archaeologists, anthropologists, geneticists, and zooarchaeologists, has been funded by the UK-based Arts and Humanities Research Council to address the following questions:

- 1) When, how and why did domestication and the early husbandry of chicken take place?
- 2) How rapidly did chickens spread into different parts of Europe and how was this diffusion linked to population movements, trade or cultural changes?

- 3) When did poultry and egg production emerge and how intensively were chickens exploited for these products in different regions and periods?
- 4) When and where did modern chicken breeds develop?
- 5) How have chickens changed society and culture in antiquity and in modern times?
- 6) Can evidence from the past be used to transform modern practices of chicken management?

Researchers from Bournemouth University, as well as the Principal Investigator for the project, Bournemouth University's Dr Mark Maltby said, "This is a fantastic opportunity to work with a team of high international esteem drawn from a wide range of disciplines that includes genetics, cultural anthropology, history and archaeological science. We are united by our mutual research interests in how chickens and people have interacted in the past and the present."

The zooarchaeologists will create the largest on-line database dedicated to a single order of animals and will capture information concerning element representation, sex, age, size, and pathology from sites across Europe. If you are interested in contributing data, please get in touch with the project team - we would love to hear from you. The project is supported by an interactive research network "The Chicken Coop" (<http://www.chickencoop.net/>) that has already been established, and is already being populated with data.

The project will fund five post-doctoral research assistant posts and nine PhD studentships in zooarchaeology, ecology and archaeology, anthropology, stable isotope analysis and DNA analysis. All of the PhD studentships and a number of the post-doctoral research posts will be appointed by open recruitment: further particulars will be made available on the project website in the autumn.

You can follow the progress of the project on twitter: @Chicken_project. 


SHEFFIELD SHORT COURSE APRIL 2014

Understanding Zooarchaeology I University of Sheffield 7th–9th April 2014

The Zooarchaeology Team of the University of Sheffield will run the next edition of its Understanding Zooarchaeology I short course on 7–9 April 2014. This course, which is now being run for the seventh time since January 2011, aims to provide an understanding of the basic theory and methods which zooarchaeologists use to understand animal bone evidence. The course will include lectures, discussion, and hands on practical classes. The course is addressed to anybody with an interest in the subject and has in the past included a large variety of participants, ranging from students, to amateurs, professionals in other fields, museum staff, etc.

Booking for the course will be done online, therefore please watch this space to see when the online shop goes live:

<http://www.shef.ac.uk/archaeology/research/zooarchaeology-lab/short-course>

For any queries please contact us at: zooarch-short-course@sheffield.ac.uk 



Wrocław University of Life and Animal Sciences
Department of Animal Physiology and Biostructure, Division of Animal Anatomy

The Wrocław University Division of Animal Anatomy and Archaeozoology Lab would like to update ICAZ members on their activities. The Division of Animal Anatomy is headed by Maciej Janeczek, and the Head of Archaeozoological Lab is Aleksander Chrószcz. The Lab is staffed by Joanna Klećkowska-Nawrot, Renata Nowaczyk, and Edyta Pasicka. The Lab's primary areas of interest are: archaeozoological analysis of animal bone material from the Neolithic to the Middle Ages; paleopathological analysis of animal bone material from the Neolithic to the Middle Ages; human–animal–environment relationships in various periods of history; and the history of veterinary medicine.


The Lab is actively involved in publishing research and presenting at conferences, and its current activities include the preparation of scientific projects investigating animal diet in medieval omnivores and carnivores through stable isotope analysis of pigs and dogs from Wrocław and Istanbul. The Lab's recent collaborations include working with the:

- Polish Academy of Sciences Institute of Archaeology and Ethnology (Bogusław Gediga) on the archaeozoological analysis for the A4 highway build. Expected results will give a wide picture of human–animal–environment relationship in Silesian settlements from the earliest times to medieval period.

- University of Wrocław Institute of Archaeology (Jerzy Piekalski, Artur Błazejewski, Krzysztof Jaworski, Tomasz Gralak, Aleksandra Pankiewicz) on archaeozoological investigations of sites in Silesia (Górzec, Wrocław, Gromnik). Especially important is the cooperation during the analysis of Ostrów Tumski (Cathedral Island) and Nowy Targ (New Market Square) in medieval Wrocław. These scientific activities are funded by the Polish government and aim to reconstruct complex life in medieval city.

- Slovak Academy of Sciences Institute of Archaeology (Karol Pieta, Zora Bielichova) on archaeozoological investigations carried on material from Liptovská Mara. The aim of the study is to interpret human–animal–environment relationships in the Celtic and other historic periods.


- University of Istanbul Department of Anatomy Archaeozoological Lab (Vedat Onar) on archaeozoological investigations carried on material from Van-Yoncatepe and Theodosius Harbour in Istanbul. Long-term cooperation in scientific activities in the field of Polish and Turkish archaeozoological materials.

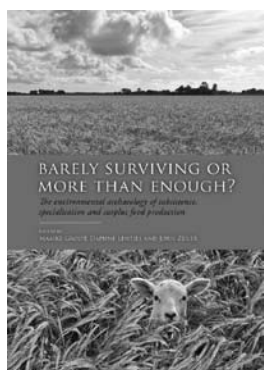
If you would like more information on the Wrocław University of Life and Animal Sciences's Archaeozoology Laboratory please contact Maciej Janeczek (janeczekm@poczta.onet.pl) or Aleksander Chrószcz (bjorn@onet.pl). 

ZOOARCHAEOLOGY IN PORTUGAL (CONT.)

Continued from page 4

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Barely Surviving or More than Enough? The Environmental Archaeology of Subsistence, Specialisation and Surplus Food Production edited by Maaïke Groot, Daphne Lentjes, and Jørn Zeiler (2013). Leiden, Sidestone Press [ISBN 9789088901997. 298 pages, 82 illustrations].

How people produced or acquired their food in the past is one of the main questions in archaeology. Everyone needs food to survive, so the ways in which people managed to acquire it forms the very basis of human existence. Farming was key to the rise of human sedentism. Once farming moved beyond subsistence, and regularly produced a surplus, it supported the development of specialisation, speeded up the development of socio-economic as well as social complexity and the rise of towns and the development of city states. In short, studying food production is of critical importance in understanding how societies developed.

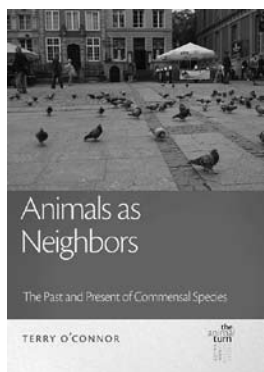
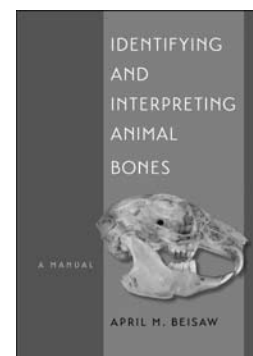
Environmental archaeology often studies the direct remains of food or food processing, and is therefore well-suited to address this topic. What is more, a wealth of new data has become available in this field of research in recent years. This allows research synthesis with a regional and diachronic approach.

Indeed, most of the papers in this volume offer studies on subsistence and surplus production with a wide geographical perspective. The research areas vary considerably, ranging from the American mid-South to Turkey. The range in time periods is just as wide, from c. 7000 BC to the 16th century AD. Topics covered include foraging strategies, the combination of domestic and wild food resources in the Neolithic, water supply, crop specialisation, the effect of the Roman occupation on animal husbandry, town-country relationships, and the monastic economy. With this collection of papers and the theoretical framework presented in the introductory chapter, we wish to demonstrate that the topic of subsistence and surplus production remains of interest, and promises to generate more exciting research in the future.

Identifying and Interpreting Animal Bones: A Manual by April M. Beisaw (2013). Los Angeles, Texas A&M University Press [ISBN 9781623490263. 192 pages. 43 color photos. 36 line art images].


Identifying and Interpreting Animal Bones was written to help new analysts (novice to intermediate) make decisions throughout the analytical process, from receiving a collection to producing a report. This manual is intended to be used alongside comparative collections and bone atlases, making it applicable to any region or time period. The photographs and line drawings included serve as examples of what to look for when using comparative resources and illustrate general patterns for identifying both complete and highly fragmentary remains. The manual can be read straight through to learn how to distinguish bones and teeth of mammals, fish, birds, reptiles, and amphibians. It can also be used as a quick reference guide for tasks such as differentiating fragments of small-mammal and large-bird ribs or recalling the features that distinguish types of bird vertebrae. A detailed index allows readers to quickly find information such as the traits of an amphibian pubis or an explanation of survivorship. The basics of taphonomy and quantification are covered with just enough detail for readers to make decisions and seek additional interpretive resources. Photographs taken with 10X and 50X magnification aid in the identification of taphonomic signatures. Sample data illustrate common calculations such as MNI and NISP and the creation of body-part profiles.

An online appendix (<http://www.identifiedbones.com>) contains sample faunal reports, including one produced using the data in the manual. Additional sample data and technical reports will be added to the online appendix over time. These can be used for classroom analysis exercises or to explore various ways to document faunal data. To request that a link to your freely available data and/or reports be added or removed from the online appendix, send an e-mail to april.beisaw@gmail.com. Links to journal articles and other copyrighted material will not be provided.



Animals as Neighbors: The Past and Present of Commensal Species by Terry P. O'Connor (2013). East Lansing, Michigan State University Press [ISBN 9781611860955. 184 pages].

In this fascinating book, Terry O'Connor explores a distinction that is deeply ingrained in much of the language that we use in zoology, human-animal studies, and archaeology – the difference between wild and domestic. For thousands of years, humans have categorized animals in simple terms, often according to the degree of control that we have over them, and have tended to see the long story of human-animal relations as one of increasing control and management for human benefit. And yet, around the world, species have adapted to our homes, our towns, and our artificial landscapes, finding ways to gain benefit from our activities and so becoming an important part of our everyday lives. These commensal animals remind us that other species are not passive elements in the world around us but intelligent and adaptable creatures. *Animals as Neighbors* shows how a blend of adaptation and opportunism has enabled many species to benefit from our often destructive footprint on the world. O'Connor investigates the history of

this relationship, working back through archaeological records. By requiring us to take a multifaceted view of human-animal relations, commensal animals encourage a more nuanced understanding of those relations, both today and throughout the prehistory of our species. Further details are available at <http://msupress.org/books/book/?id=50-1D0-26A2#.Ujr4x8akoSU> and at <http://www.bibliovault.org/BV.book.epl?ISBN=9781611860986>. 

DECEMBER 16–18, 2013

Vertebrates without Bones session at the Theoretical Archaeology Group (TAG) conference at Bournemouth University, UK.

e-mail: mmaltby@bournemouth.ac.uk
microsites.bournemouth.ac.uk/tag2013

2014

FEBRUARY 15–18, 2014

New Advances and Applications in Sclerochronology session at the 10th North American Paleontological Convention (NAPC) in Gainesville, Florida, USA.

e-mail: donna64@unc.edu and
goodwind@denison.edu
<http://www.flmnh.ufl.edu/napc>

MARCH 5–7, 2014

Origin and importance of falconry until 1500 AD with an emphasis on northern Europe workshop at Zentrum für Baltische und Skandinavische Archäologie (ZBSA) Schleswig, Germany.

e-mail: oliver.grimm@schloss-gottorf.de

MARCH 26–28, 2014

6th meeting of the **ICAZ Archaeozoology, Genetics & Morphometrics Working Group** at the Universidade de Lisbon, Portugal.

e-mail: 6ICAZ.AGM@gmail.com
<https://www.fc.ul.pt/en/conferencia/6th-icaz>

APRIL 26, 2014

Association for Environmental Archaeology (AEA) and Conchological Society Joint Conference on **Molluscs in Archaeology**.

e-mail: aea.escargots@gmail.com
<http://envarch.net/category/aea-conference/>

MARCH 10–11, 2014

SEAPEOPLE - Archaeology of maritime hunter-gatherers: From settlement function to the organization of the coastal zone workshop of the Société Préhistorique Française in Rennes, France.

e-mail: catherine.dupont@univ-rennes1.fr
seapeople2014.univ-rennes1.fr/index.php

APRIL 23–27, 2014

Animal life histories: integrative zooarchaeological approaches to interpretation of individual animals session at the 79th Annual Meeting of the Society for American Archaeology (SAA) in Austin, Texas, USA.

e-mail: lsfleming@ualberta.ca
saa.org

JUNE 09–13, 2014

Artifacts made out of Bone and Related Materials: Manufacture, Typology and Use proposed workshop at the 9th International Congress on the Archaeology of the Ancient Near East (ICAANE) in Basel, Switzerland.

e-mail: c.cakirlar@rug.nl
www.wbrg.net/images/stories/news/workshop_icaane_Basel_2014.pdf

AUGUST 25–30, 2014

10th meeting of the ICAZ Worked Bone Research Group (WBRG) in Beograd, Serbia.

e-mail: selenavitezovic@gmail.com
internet: <http://www.wbrg.net/meetings/beograd-2014>

AUGUST 27–30, 2014

International Symposium on Biomolecular Archaeology (ISBA) at the University of Basel, Switzerland.

e-mail: isbabil4-ipna@unibas.ch

SEPTEMBER 01–07, 2014

Zooarchaeology related sessions at the 17th congress of the Union Internationale des Sciences Préhistoriques et Protohistoriques (UISPP):

• B18: Hominid-bird interactions in Prehistory: The humankind and the avian world: archaeological and zooarchaeo-

logical evidence for inferring behavioural evolutionary signatures;

- B25: Mathematical approaches for the study of Human-Fauna interactions in the Pleistocene;
- B29: Shepherds and caves;
- B31: Aquatic resource consumption by prehistoric humans;
- B34: Archaeozoiconology;
- B38: Innovation in the production and use of equipment in hard animal materials; in Burgos, Spain

e-mail: dorothee.drucker@ifu.uni-tuebingen.de and averboudh@univ-tlse2.fr
<http://www.burgos2014uispp.com>

SEPTEMBER 22–27, 2014

12th International Council for Archaeozoology (ICAZ) Conference at the Museo de Historia Natural de San Rafael, Argentina.

e-mail: info@icaz2014argentina.com
<http://www.icaz2014argentina.com>

SEPTEMBER 28–OCTOBER 10, 2014

Vertebrate Taphonomy: Applications and Implications symposium at the 4th International Paleontological Congress (IPC) in Mendoza, Argentina.

e-mail: cmontalvolp@yahoo.com.ar
www.ipc4mendoza2014.org.ar/symposia



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